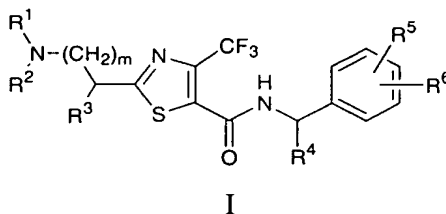


CLAIMS

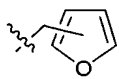
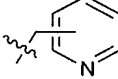
We claim:

- 5 1. A compound of Formula I or a pharmaceutically acceptable salt thereof



- 10 wherein

$R^1$  is  $C_{1-6}$ alkyl,  $C_{3-7}$ cycloalkyl,  $-(CH_2)_{1-4}C_{3-7}$ cycloalkyl,  $-(CH_2)_{2-4}N(C_{1-6}alkyl)_2$ ,

$-(CH_2)_{2-4}OC_{1-6}alkyl$ , , or  ;

- 15  $R^2$  is hydrogen,  $C_{1-6}$ alkyl, or  $-(CH_2)_{2-4}OC_{1-6}alkyl$ ;

or where  $R^1$  and  $R^2$  taken together are  $-CH_2CH_2XCH_2CH_2-$ , where X is a chemical bond,  $CH_2$ ,  $CHOH$ ,  $NH$ ,  $NCH_3$ ,  $NCOCH_3$ ,  $O$ , or  $S$ ;

- 20  $R^3$  is hydrogen or hydroxy, provided that where  $R^3$  is hydroxy, m is not 0;

$R^4$  is hydrogen,  $C_{1-6}$ alkyl, hydroxymethyl, or trifluoromethyl;

$R^5$  is halogen,  $C_{1-6}$ alkyl,  $C_{1-2}$ perfluoroalkyl,  $C_{1-6}$ alkoxy,  $C_{1-2}$ perfluoroalkoxy,  $-N(R^4)_2$ ,

- 25 N-morpholinyl, or pyridyl;

$R^6$  is hydrogen, halogen, or  $C_{1-6}$ alkoxy;

m is 0 or 1.

2. A compound of claim 1 where  $R^3$  is hydrogen and m is 1.
3. A compound of claim 2 where  $R^4$  is methyl.
- 5 4. A compound of claim 3 selected from the following group:
- 2-[2-(4-morpholinyl)ethyl]-N-[1-[3-(3-pyridinyl)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;
- 10 N-[1-[3-(dimethylamino)phenyl]ethyl]-2-[2-(1-pyrrolidinyl)ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;
- 2-[2-(1-pyrrolidinyl)ethyl]-4-(trifluoromethyl)-N-[1-[3-(trifluoromethyl)phenyl]ethyl]-5-thiazolecarboxamide;
- 15 2-[2-[(2-furanylmethyl)methylamino]ethyl]-N-[(1S)-1-[3-(4-morpholinyl)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;
- 2-[2-[(2-furanylmethyl)methylamino]ethyl]-N-[1-[3-(3-pyridinyl)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;
- 20 2-[2-(1-pyrrolidinyl)ethyl]-N-[1-[3-(trifluoromethoxy)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;
- 2-[2-[(2-furanylmethyl)methylamino]ethyl]-N-[1-[3-(trifluoromethoxy)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;
- 25 2-[2-(diethylamino)ethyl]-N-[1-[3-(trifluoromethoxy)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;
- 30 2-[2-(diethylamino)ethyl]-N-[1-[3-(dimethylamino)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

2-[2-[ethyl(4-pyridinylmethyl)amino]ethyl]-4-(trifluoromethyl)-N-[1-[3-(trifluoromethyl)phenyl]ethyl]-5-thiazolecarboxamide;

5 2-[2-(4-thiomorpholinyl)ethyl]-4-(trifluoromethyl)-N-[1-[3-(trifluoromethyl)phenyl]ethyl]-5-thiazolecarboxamide;

2-[2-[[2-(dimethylamino)ethyl]methylamino]ethyl]-N-[1-[3-(trifluoromethoxy)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

10 2-[2-[[2-(dimethylamino)ethyl]methylamino]ethyl]-4-(trifluoromethyl)-N-[1-[3-(trifluoromethyl)phenyl]ethyl]-5-thiazolecarboxamide;

2-[2-(4-methyl-1-piperazinyl)ethyl]-N-[1-[3-(trifluoromethoxy)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

15 2-[2-(1-piperidinyl)ethyl]-N-[1-[3-(trifluoromethoxy)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

20 N-[1-[3-(dimethylamino)phenyl]ethyl]-2-[2-(1-piperidinyl)ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

2-[2-(1-piperidinyl)ethyl]-4-(trifluoromethyl)-N-[1-[3-(trifluoromethyl)phenyl]ethyl]-5-thiazolecarboxamide;

25 N-[(1*S*)-1-[3-(4-morpholinyl)phenyl]ethyl]-2-[2-(1-piperidinyl)ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

2-[2-(4-hydroxy-1-piperidinyl)ethyl]-N-[1-[3-(trifluoromethoxy)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

30 2-[2-(4-hydroxy-1-piperidinyl)ethyl]-4-(trifluoromethyl)-N-[1-[3-(trifluoromethyl)phenyl]ethyl]-5-thiazolecarboxamide;

- 2-[2-[(cyclopropylmethyl)propylamino]ethyl]-N-[1-[3-(trifluoromethoxy)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;
- 2-[2-[(cyclopropylmethyl)propylamino]ethyl]-N-[1-[3-(dimethylamino)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;
- 2-[2-[(cyclopropylmethyl)propylamino]ethyl]-4-(trifluoromethyl)-N-[1-[3-(trifluoromethyl)phenyl]ethyl]-5-thiazolecarboxamide;
- 2-[2-(diethylamino)ethyl]-N-[(1S)-1-[3-(3-pyridinyl)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;
- 2-[2-(1-piperidinyl)ethyl]-N-[(1S)-1-[3-(3-pyridinyl)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;
- 2-[2-[(1-ethylpropyl)amino]ethyl]-N-[1-[3-(trifluoromethoxy)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;
- 2-[2-[(1-ethylpropyl)amino]ethyl]-4-(trifluoromethyl)-N-[1-[3-(trifluoromethyl)phenyl]ethyl]-5-thiazolecarboxamide;
- 2-[2-[(2-furanylmethyl)amino]ethyl]-N-[(1S)-1-[3-(3-pyridinyl)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;
- 2-[2-(cyclopentylamino)ethyl]-N-[1-[3-(trifluoromethoxy)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;
- 2-[2-(cyclopentylamino)ethyl]-N-[(1S)-1-[3-(3-pyridinyl)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;
- 2-[2-[bis(2-methoxyethyl)amino]ethyl]-N-[1-[3-(trifluoromethoxy)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

2-[2-[bis(2-methoxyethyl)amino]ethyl]-4-(trifluoromethyl)-N-[1-[3-(trifluoromethyl)phenyl]ethyl]-5-thiazolecarboxamide;

2-[2-[bis(2-methoxyethyl)amino]ethyl]-N-[(1S)-1-[3-(3-pyridinyl)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

2-[2-(4-morpholinyl)ethyl]-N-[(1S)-1-[3-(4-morpholinyl)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

10 N-[1-[3-(dimethylamino)phenyl]ethyl]-2-[2-(4-thiomorpholinyl)ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

2-[2-[[2-(dimethylamino)ethyl]methylamino]ethyl]-N-[1-[3-(dimethylamino)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide; and

2-[2-(4-methyl-1-piperazinyl)ethyl]-N-[(1S)-1-[3-(4-morpholinyl)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide.

5. A compound of claim 1 where R<sup>3</sup> is hydroxy and m is 1.

6. A compound of claim 5 where R<sup>4</sup> is methyl.

7. A compound of claim 6 selected from the following group:

25 2-[1-hydroxy-2-(1-piperidinyl)ethyl]-N-[1-[3-(trifluoromethoxy)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

2-[1-hydroxy-2-(1-pyrrolidinyl)ethyl]-4-(trifluoromethyl)-N-[1-[3-(trifluoromethyl)phenyl]ethyl]-5-thiazolecarboxamide;

30 2-[2-[(2-furanylmethyl)methylamino]-1-hydroxyethyl]-4-(trifluoromethyl)-N-[1-[3-(trifluoromethyl)phenyl]ethyl]-5-thiazolecarboxamide;

2-[2-[(cyclopropylmethyl)propylamino]-1-hydroxyethyl]-N-[1-[3-(trifluoromethoxy)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

2-[2-(diethylamino)-1-hydroxyethyl]-N-[(1*S*)-1-[3-(4-morpholinyl)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

2-[2-(diethylamino)-1-hydroxyethyl]-N-[(1*S*)-1-[3-(3-pyridinyl)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

10 2-[1-hydroxy-2-(4-morpholinyl)ethyl]-N-[1-[3-(trifluoromethoxy)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

2-[1-hydroxy-2-(4-morpholinyl)ethyl]-4-(trifluoromethyl)-N-[1-[3-(trifluoromethyl)phenyl]ethyl]-5-thiazolecarboxamide;

15

2-[1-hydroxy-2-(4-methyl-1-piperazinyl)ethyl]-4-(trifluoromethyl)-N-[1-[3-(trifluoromethyl)phenyl]ethyl]-5-thiazolecarboxamide;

2-[1-hydroxy-2-(4-methyl-1-piperazinyl)ethyl]-N-[(1*S*)-1-[3-(4-morpholinyl)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

20

2-[1-hydroxy-2-(4-methyl-1-piperazinyl)ethyl]-N-[(1*S*)-1-[3-(3-pyridinyl)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

2-[1-hydroxy-2-(1-piperidinyl)ethyl]-4-(trifluoromethyl)-N-[1-[3-(trifluoromethyl)phenyl]ethyl]-5-thiazolecarboxamide;

25

2-[1-hydroxy-2-(1-pyrrolidinyl)ethyl]-N-[1-[3-(trifluoromethoxy)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

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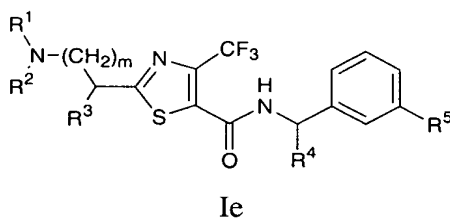
N-[1-[3-(dimethylamino)phenyl]ethyl]-2-[1-hydroxy-2-(1-pyrrolidinyl)ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

2-[1-hydroxy-2-(1-pyrrolidinyl)ethyl]-N-[(1*S*)-1-[3-(4-morpholinyl)phenyl]ethyl]-4-(trifluoromethyl)-5-thiazolecarboxamide;

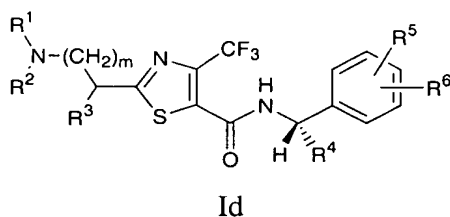
2-[2-[(cyclopropylmethyl)propylamino]-1-hydroxyethyl]-4-(trifluoromethyl)-N-[1-  
5 [3-(trifluoromethyl)phenyl]ethyl]-5-thiazolecarboxamide; and

2-[2-(4-acetyl-1-piperazinyl)-1-hydroxyethyl]-4-(trifluoromethyl)-N-[1-[3-(trifluoromethyl)phenyl]ethyl]-5-thiazolecarboxamide.

10 8. A compound of claim 1 where the structure is that of Formula Ie.



15 9. A compound of claim 1 where the structure has the stereochemical configuration of Formula Id.



20

10. A pharmaceutical composition comprising a compound of Formula I and a pharmaceutically acceptable carrier.

11. A method for the treatment of disorders responsive to opening of the KCNQ  
25 potassium channels in a mammal in need thereof, which comprises administering to said mammal a therapeutically effective amount of the compound of claim 1.

12. The method of claim 11 wherein said disorders are acute and chronic pain, migraine, neuropathic pain, bipolar disorders, convulsions, mania, epilepsy, anxiety, depression and neurodegenerative disorders.
- 5 13. The method of claim 11 wherein said disorder is migraine.
14. The method of claim 11 wherein said disorder is bipolar disorders.
15. The method of claim 11 wherein said disorder is neuropathic pain.
- 10 16. The method of claim 11 wherein said disorder is anxiety.